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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/813,558

03/29/2004

Yoshio Ishii

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4103

7278

7590

08/20/2008

DARBY & DARBY P.C.

P.O. BOX 770

Church Street Station

New York, NY 10008-0770

EXAMINER

WEINSTEIN, LEONARD J

ART UNIT

PAPER NUMBER

3746

MAIL DATE

DELIVERY MODE

08/20/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/813,558	<b>Applicant(s)</b> ISHII ET AL.	
	<b>Examiner</b> LEONARD J. WEINSTEIN	<b>Art Unit</b> 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 7-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 5, 2008 has been entered.
2. The examiner acknowledges the amendments to claims 1, 3-5, and 7. The examiner notes claims 8 and 9 have been introduced.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-5, and 7-9 rejected under 35 U.S.C. 102(b) as being anticipated by Shirato et al. US 4,629,561. Shirato teaches all the limitations as claimed for a vacuum degassing apparatus including: **[claims 3 and 5]** a vacuum vessel 5 including a gas permeation diaphragm 10, an exhaust vacuum pump 2, and the vacuum control system 8 including a controller 8 for monitoring the inside pressure of the vacuum vessel 5 using a pressure sensor 20, and controlling a voltage applied to a DC brushless motor on the basis of an output signal resulting from measurement of the inside pressure of the vacuum vessel 5 by the pressure sensor 20 to control the displacement of the

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exhaust vacuum pump 2 and an air introduction device 9 inserted in a vacuum exhaust path (c) provided by a vacuum exhaust pipe 13 that interconnects the vacuum vessel 5 to the exhaust vacuum pump 2, the air introduction device 9 being inserted in the vacuum exhaust path (c) at a position on the vacuum exhaust pipe 13 between the vacuum vessel 5 and the exhaust vacuum pump 2, for continuously introducing a controlled amount of air into the vacuum exhaust pipe 13, wherein gas dissolved in the liquid is isolated with the gas permeation diaphragm 10 by reducing the inside pressure of the vacuum vessel 5 by operating the exhaust vacuum pump 2, and by operating the controller 8 to hold the degree of vacuum in the vacuum vessel 5 constant; **[claims 4 and 7]** an air introduction device 9 comprises a constant circulation resistance tube 14 which is formed by coaxially inserting a resistance adjusting rod 15 into a hollow capillary 14 and which can control a flow rate of gas circulating between an inner circumference of the hollow capillary 14 and an outer circumference of the resistance adjusting rod 15 by adjusting a circulation resistance of the gas, wherein the circulation resistance can be adjusted by varying an insertion length of the resistance adjusting rod 15 inserted into the hollow capillary 14, and wherein a separation preventing short tube 21 is fitted to an outer circumference of the hollow capillary 14 at an opening end, the separation preventing short tube 21 being fitted to prevent movement of the adjusting rod 15 and thereby fix the circulation resistance; **[claim 8]** a constant circulation resistance tube 14 is configured such that the circulating gas flows along substantially the entire length of the resistance adjusting rod 15 within the hollow capillary 14; **[claim**

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**9]** and a waste inflow preventing filter 4 is fitted to an opening of the separation preventing short tube 21.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1, 3-5, and 7 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEONARD J. WEINSTEIN whose telephone number is (571)272-9961. The examiner can normally be reached on Monday - Thursday 7:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on (571) 272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Devon C Kramer/  
Supervisory Patent Examiner, Art  
Unit 3746

/Leonard J Weinstein/  
Examiner, Art Unit 3746